

**PATENT**

Atty. Dkt. No. RO999114

**IN THE CLAIMS:**

The claims remain as follows:

1. (Previously Presented) A method of verifying a bookmark, comprising the steps:
  - (a) storing, as a bookmark in at least a first data structure, a first network information address of a document having content;
  - (b) identifying embedded network information addresses within the content;
  - (c) automatically searching, at a predefined frequency, for the document located at the first network information address to determine whether the first network information address is retrievable;
  - (d) wherein if the first network information address is retrievable, determining whether the document has been moved to a second network information address different from the first network information address; and
  - (e) wherein if the first network information address is not retrievable, making the identified embedded network information addresses available to a user via the stored bookmark.
2. (Original) The method of claim 1, wherein the first network information address is a Uniform Resource Locator (URL).
3. (Previously Presented) The method of claim 1, wherein the document located at the first network information address is a Hypertext Markup Language (HTML) document.
4. (Original) The method of claim 1, wherein (b) is performed at a user-defined frequency.
5. (Previously Presented) The method of claim 1, wherein if the document has been moved to the second network information address, replacing the first network

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information address in the first data structure with the second network information address.

6. (Previously Presented) The method of claim 1, wherein determining whether the document has been moved to the second network information address comprises detecting only a single hypertext link in a forwarding document located at the first network information address.
7. (Previously Presented) The method of claim 6, further comprising determining whether the content has changed by comparing a stored first date to a second date returned by a server, wherein the first date is stored during step (a).
8. (Previously Presented) The method of claim 1, wherein if the document has not been moved to the second network information address, determining whether the content has changed.
9. (Previously Presented) The method of claim 8, wherein determining whether the content has changed comprises comparing a stored first date to a second date returned by a server, wherein the first date is stored during step (a).
10. (Original) The method of claim 1, the first data structure has at least a first data field related to the first network information address.
11. (Previously Presented) The method of claim 10, further comprising, storing each identified embedded network information address in a second data structure containing one or more second data fields which relate to the embedded network information addresses.
12. (Original) The method of claim 11, wherein the first data structure and the second data structure are the same.

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13. (Previously Presented) The method of claim 11, further comprising generating a verification table containing the first data field and the one or more second data fields.
14. (Previously Presented) The method of claim 1, further comprising, storing each identified embedded network information address in the first data structure.
15. (Previously Presented) The method of claim 14, wherein (c) comprises attempting to download the document located at first network information address, wherein a successful attempt indicates that the first network information address is retrievable and an unsuccessful attempt indicates that the first network information address is irretrievable.
16. (Previously Presented) The method of claim 15, wherein if the document has been moved to the second network information address, replacing the first network information address in the first data structure with the second network information address; and wherein making the identified embedded network information addresses available to the user via the stored bookmark comprises replacing the first network information address in the first data structure with a temporary document containing the one or more embedded network information addresses.
17. (Previously Presented) The method of claim 15, wherein if (c) indicates that the first network information address is retrievable, determining whether the content has changed.
18. (Previously Presented) The method of claim 17, wherein determining whether the content has changed comprises comparing a first date stored in the first data structure to a second date returned by a server.
19. (Previously Presented) A computer implemented automated method for maintaining bookmarks, comprising:

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- (a) storing, in a data structure, a bookmark to a network information address of a document having content;
- (b) scanning the content for one or more embedded network information addresses, wherein if any embedded network information addresses are found, storing the embedded network information addresses; and
- (c) periodically determining whether the network information address has changed and;
- (d) wherein if the network information address has changed:
  - determining whether a forwarding network information address is provided; and
  - if not, associating the bookmark with the embedded network information addresses.

20. (Original) The method of claim 19, further comprising performing (c) at a user-defined frequency.

21. (Previously Presented) The method of claim 19, wherein periodically determining whether the network information address has changed comprises attempting to download the document.

22. (Previously Presented) The method of claim 19, wherein the network information address is a URL and the document is an HTML document.

23. (Previously Presented) The method of claim 19, wherein periodically determining whether the network information address has changed comprises loading the network information address from the data structure and attempting to locate the document on a server, wherein a successful attempt indicates that the network information address has not changed and an unsuccessful attempt indicates that the network information address has changed.

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24. (Previously Presented) The method of claim 23, wherein if the network information address has changed, and if the forwarding network information address is provided, replacing the bookmark network information address in the data structure with the forwarding network information address.
25. (Previously Presented) The method of claim 19, wherein if the network information address has not changed, determining whether the content has changed.
26. (Previously Presented) The method of claim 25, wherein determining whether the content has changed comprises comparing a first date stored in the data structure to a second date returned by a server.
27. (Previously Presented) A signal bearing medium for storing a program that when executed by a computer performs an operation comprising:
- (a) downloading a bookmark network information address of a document having content;
  - (b) storing the bookmark network information address in a data structure;
  - (c) scanning the content for one or more embedded network information addresses, wherein if any embedded network information addresses are found, storing the embedded network information addresses in the data structure; and
  - (d) periodically determining whether the document is retrievable at the bookmark network information address, wherein:
    - (i) if the information is not retrievable at the bookmark network information address, determining whether a forwarding network information address is provided, wherein if the forwarding network information address is provided, replacing the bookmark network information address in the data structure with the forwarding network information address, and wherein if a forwarding network information address is not provided, generating a backup document containing the embedded network information addresses stored in the data structure; and wherein

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(ii) if the document is retrievable at the bookmark network information address, determining whether the content has changed, wherein if the content has changed, repeating (c).

28. (Previously Presented) The program of claim 27, wherein the bookmark network information address is a URL.

29. (Previously Presented) The program of claim 27, wherein the document is an HTML document.

30. (Previously Presented) The program of claim 27, wherein determining the content has changed comprises comparing a first date stored in the data structure to a second date returned by a server.

31. (Original) The program of claim 27, wherein the bookmark network information address identifies a server computer connected to a client computer, and wherein the program is located on the client computer.

32. (Original) The program of claim 31, wherein the client computer and the server computer are the same computer system.

33. (Original) The program of claim 31, wherein the client computer and the server computer comprise different computer systems connected by a network.

34. (Original) The program of claim 31, wherein the data structure is stored on the client computer.

35. (Previously Presented) A computer implemented method of managing bookmarks, comprising:

(a) in response to a user request to bookmark a web page:  
storing a network address for the web page in a bookmark data structure;

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storing each hypertext link embedded in the web page in the bookmark data structure in a manner which associates the embedded hypertext links and the web page; and associating a graphical bookmark object of a bookmark menu with the web page; and

(b) determining whether the web page has moved to a different network address;

(c) if the web page has moved, determining whether an updated network address for the web page can be located; and

(d) if the updated network address cannot be located, associating the graphical bookmark object with the stored embedded hypertext links of the web page.

36. (Previously Presented) The method of claim 35, wherein (b) is performed at a predefined frequency.

37. (Previously Presented) The method of claim 35, further comprising displaying the stored embedded hypertext links of the web page upon a user selection of the graphical bookmark object.

38. (Previously Presented) A method of maintaining access to information objects associated with a target document, comprising:

(a) in response to a user request, storing a reference to the target document containing pointers to a plurality of information objects, whereby a user viewing the target document can access each of the plurality of information objects from the target document via the pointers;

(b) maintaining the pointers in a data structure at a separate storage location from the target document;

(c) automatically searching, at a predefined frequency, for the target document on the basis of the reference to determine whether the target document is retrievable; and

(d) when the target document is not retrievable, automatically making the pointers available to a user via the stored reference, whereby the user has access to the plurality of information objects even though the target document is not retrievable.

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39. (Previously Presented) The method of claim 38, wherein the target document is a network document.
40. (Previously Presented) The method of claim 38, wherein the target document is a network document and the reference is a Uniform Resource Locator (URL).
41. (Previously Presented) The method of claim 38, wherein the target document is a Hypertext Markup Language (HTML) document.
42. (Previously Presented) The method of claim 38, wherein the data structure contains only the pointers and no other content from the target document.